

n-Butyl Glycidyl Ether – Comments of Environmental Defense

(Submitted via Internet May 7, 2002)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for n-Butyl Glycidyl Ether.

The society of the Plastics Industry (SPI) has sponsored n-butyl glycidyl ether (nBGE) under the HPV Challenge Program. The test plan and robust summaries are well-written and organized and therefore easy to evaluate. A key element in the test plan is SPI's proposal to use t-butyl glycidyl ether (tBGE) to fulfill some of the HPV requirements. While we agree that this seems reasonable based on structure, physiochemical properties and available health effects data, we continue to advocate that EPA and the HPV sponsors adopt more definitive approaches and criteria for the establishment of categories. We believe that a centerpiece for a new strategy should utilize emerging technologies for evaluating changes in gene expression in appropriate biological systems for members of a proposed category or in cases like nBGE where surrogate data from a structurally related chemical is proposed. Recent advances in microarray technologies provide a well-studied method to determine if all members of a proposed class exert a common pattern of effects on gene expression. Such data, in combination with structural, physiochemical, metabolism and toxicity information would provide compelling arguments to either accept or reject a proposed category without the need for large animal experiments.

We agree with the sponsors proposal to conduct water solubility studies on nBGE. We also agree that a developmental toxicity study is required to fulfill the HPV requirements.

Thank you for this opportunity to comment.

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